

REMARKS

Claims 1, 2, 5, 6, 8-19, 21-32, 34-39 and 48-50 are pending in the application. Claims 1, 14 and 27 are in independent format. Applicants hereby respond to the Office Action based on the following remarks.

Claim Rejections 35 U.S.C. § 112

As amended, Applicants submit that claims 8, 21 and 24 clearly overcome the Examiner's § 112, second paragraph rejection for indefiniteness. Whereas the Examiner argued that the original phrase in these claims, "relatively inexpensive," was indefinite when comparing the material of the structural layer to the inner and outer layers, there is no question that the structural layer is comprised of a material that, regardless of time frame, is and will remain less expensive than the decorative layers used in automotive applications. As such, the claims as amended should not be subject to a further indefiniteness objection.

Claim Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1, 13, 14, 24, 27 and 39 under § 102(b) as being anticipated by Curtis. Applicant submits that these claims, as amended, are clearly not anticipated by Curtis, U.S. Patent No. 5,106,137. Specifically, Curtis does not teach fascia comprised of a single structural layer having a thickness of 2.0 millimeters or less. The lack of any teaching in Curtis of any fascia having structural

layers with such a thickness limitation was previously confirmed by the Examiner in the above Office Action. "Curtis discloses the claimed invention except for the specific thickness of the structural layer of the fascia." Moreover, Curtis does not teach an energy absorber which is "integrally formed with the fascia." For these reasons, and for the reasons as set forth below in the § 103 section, these claims should be deemed patentable.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 2-11, 15-24 and 28-37 under § 103 as being unpatentable over Curtis in view of Wilson. The Applicant submits that these claims, as amended, together with amended claims 1, 13, 14, 24, 27 and 39 and new claims 48-50, should be deemed patentable over these references.

The Examiner suggests that it would have been obvious to one of ordinary skill in the art to combine Curtis with Wilson, U.S. Patent No. 6,260,893, to construct the fascia of Curtis from materials disclosed by Wilson resulting in a fascia thickness, defined as the "structural layer" in the claims, between 1.5 and 2.0 mm as an alternate fascia construction. Wilson is only able to obtain the subject thickness, however, by resorting to a composite material which includes "reinforcement fillers in the form of very small mineral reinforcement particles," namely "nanoparticles," Col. 2, lines 43-49, as a structural layer. Applicant's invention, by contrast, does not need to use these composite materials, and overcomes the thickness limitations of the

prior art by while using conventional polymers. Indeed, even recycled polymers, which would not typically contain such mineral reinforcement fillers, can be used as the structural layer in Applicant's invention.

Applicant has revised said claims to more clearly define the invention. In particular, Applicant has added the proviso that the polymeric material contains no mineral reinforcement nanoparticles. Applicant submits that there is no basis for combining the teachings of Curtis and Wilson to achieve bumper having an acceptable fascia with the claimed thickness without the use of mineral reinforcement nanoparticles. Moreover, even with these two references in hand, there is nothing that would lead a person of ordinary skill in the art to the claimed invention. Thus, amended claims 2-11, 15-24 and 28-37 (subject to the prior § 103 rejections), amended claims 1, 13, 14, 24, 27 and 39 (subject to the prior § 102 rejections) and new claims 48-50 should be found to be patentable.

In addition, the Examiner has rejected claims 12, 25 and 38 under § 103(a) as unpatentable over Curtis in view of Carpenter, U.S. Patent No. 5,154,462. First, for the reasons set forth above, Applicant submits that Curtis does not teach a fascia having the requisite thickness, with or without mineral reinforcement nanoparticles; Carpenter does not resolve that shortcoming. Moreover, neither Curtis nor Carpenter teach that an energy absorber formed of beads of expanded polypropylene can be formed integrally with the fascia. As such, a person of ordinary skill in the art would

not find the invention claimed in these claims to be obvious in light of these references.

Respectfully submitted,

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APPENDIX A

COMPLETE LIST OF ALL PENDING CLAIMS (WITHOUT INSERTION/DELETION MARKING)

1. (Amended) A vehicle comprising:

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a body having a bumper mounting portion thereon;

a bumper beam mounted to the vehicle bumper mounting portion;

a fascia mounted to the vehicle in overlying fashion to the bumper beam, said fascia comprised of a single structural layer of polymeric material with the proviso that the polymeric material contains no mineral reinforcement nanoparticles and having a thickness of 2.0 millimeters or less; and an energy absorber integrally formed with the fascia and disposed between the fascia and the bumper beam; whereby the fascia and energy absorber can be manufactured, assembled, installed and replaced as a unit.

2. The vehicle of claim 1 wherein the fascia has a thickness generally less than 3 millimeters.

3. The vehicle of claim 1 wherein the fascia comprises at least two layers of different materials.

4. The vehicle of claim 3 wherein one of the at least two layers comprises an outer layer comprising a transparent top coat material.

5. The vehicle of claim 4 wherein the transparent top coat has a Class A finished surface thereon.

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6. (Amended) The vehicle of claim 4 wherein the fascia further comprises an inner layer colored to have an appearance consistent with the color of the vehicle.

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8. (Amended) The vehicle of claim 6 wherein the structural layer is made of a less expensive material compared to the cost of the outer and inner layers.

9. (Amended) The vehicle of claim 6 wherein the outer and inner layers are relatively thin compared to the thickness of the structural layer.

10. (Amended) The vehicle of claim 1 wherein the structural layer has a thickness of about 1.5 to 2.0 millimeters

11. (Amended) The vehicle of claim 1 wherein the structural layer is formed from recycled materials.

12. The vehicle of claim 1 wherein the energy absorber is formed from beads of expanded polypropylene.

13. The vehicle of claim 1 wherein the energy absorber and the fascia can be shipped as a unit due to the integral formation of the energy absorber and the fascia.

14. (Amended) A bumper comprising:

a bumper beam for mounting to a vehicle;

a fascia for mounting to the vehicle in overlying fashion to the bumper beam, said

fascia comprised of a single structural layer of polymeric material with the proviso

that said polymeric material contains no mineral reinforcement nanoparticles and

having a thickness of 2.0 millimeters or less;

and

an energy absorber integrally formed with the fascia and disposed between the fascia

and the bumper beam;

whereby the fascia and energy absorber can be manufactured, assembled, installed

and replaced as a unit.

15. The bumper of claim 14 wherein the fascia has a thickness generally less than 3 millimeters.

16. The bumper of claim 14 wherein the fascia comprises at least two layers of different materials.

17. The bumper of claim 16 wherein one of the at least two layers comprises an outer layer comprising a transparent top coat material.

18. The bumper of claim 17 wherein the transparent top coat has a Class A finished surface thereon.

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19. (Amended) The bumper of claim 17 wherein the other of the at least two layers comprises an inner layer colored to have an appearance consistent with the color of the vehicle interposed between the outer layer and the structural layer.

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21. (Amended) The bumper of claim 19 wherein the structural layer is made of a less expensive material compared to the cost of the outer and inner layers.

22. (Amended) The bumper of claim 19 wherein the outer and inner layers are relatively thin compared to the thickness of the structural layer.

23. (Amended) The bumper of claim 14 wherein the structural layer has a thickness of about 1.5. to 2.0 millimeters.

B7g 24. (Amended) The bumper of claim 14 wherein the structural layer is formed from recycled materials.

25. The bumper of claim 14 wherein the energy absorber is formed from beads of expanded polypropylene.

26. The bumper of claim 14 wherein the energy absorber and the fascia can be shipped as a unit due to the integral formation of the energy absorber and the fascia.

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a fascia comprising a single structural layer of polymeric material with the proviso
that the polymeric material contains no mineral reinforcement nanoparticles, said
structural layer having a thickness of 2.0 millimeters or less, said fascia further
having an inner surface and an outer surface, the outer surface having an aesthetic
appearance consistent with the styling of a preselected vehicle; and
an energy absorber formed integrally with the inner surface of the fascia.

28. The fascia assembly of claim 27 wherein the fascia has a thickness generally
less than 3 millimeters.

29. The fascia assembly of claim 27 wherein the fascia comprises at least two layers of different materials.
30. The fascia assembly of claim 29 wherein one of the at least two layers comprises an outer layer comprising a transparent top coat material.
31. The fascia assembly of claim 30 wherein the transparent top coat has a Class A finished surface thereon.
32. The fascia assembly of claim 30 wherein the other of the at least two layers comprises an inner layer colored to have an appearance consistent with the color of the preselected vehicle.
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34. (Amended) The fascia assembly of claim 32 wherein the structural layer is made of a less expensive material compared to the cost of the outer and inner layers.
35. (Amended) The fascia assembly of claim 32 wherein the outer and inner layers are relatively thin compared to the thickness of the structural layer.

36. (Amended) The fascia assembly of claim 27 wherein the structural layer has a thickness of about 1.5 to 2.0 millimeters.

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37. (Amended) The fascia assembly of claim 27 wherein the structural layer is formed from recycled materials.

38. The fascia assembly of claim 27 wherein the energy absorber is formed from beads of expanded polypropylene.

39. The fascia assembly of claim 27 wherein the energy absorber and the fascia can be shipped as a unit due to the integral formation of the energy absorber and the fascia.

48. (New) The fascia assembly of claim 27 wherein the single structural layer has an inner and outer surface, the inner surface of the single structural layer forming the inner surface of the fascia.

49. (New) The vehicle of claim 12, wherein the fascia and energy absorber are mounted directly to the bumper beam with the proviso that no additional energy absorbing materials disposed inside or between the energy absorber and bumper beam.

50. (New) The bumper of claim 12, wherein the fascia and energy absorber are mounted directly to the bumper beam with the proviso that no additional energy absorbing materials are disposed inside or between the energy absorber and bumper beam.